



Weekly Summary Report

USEPA Oversight, Sauget Area 2, Sauget, IL

WA No. 224-RXBF-05XX / Contract No. 68-W6-0025

Week Ending Friday January 9, 2004

This report summarizes the Remedial Action (RA) work conducted by Solutia and its contractors from January 5, 2003 through January 9, 2004. The current RA fieldwork consists of barrier wall excavating, backfilling, and site preparation.

Contractors Onsite

Inquip Associates Inc. (barrier wall construction contractor)

Pangea Group (construction support services, primary subcontractor to Inquip)

PSI (Professional Service Industries) (geotechnical testing services, subcontractor to Inquip)

URS (primary consultant for Solutia)

Work Performed This Week

Solutia Bankruptcy / Production Halt

Inquip continued to maintain trench stability and to excavate the "notch" between stations 13+20 and 10+60. The notch has not been excavated to total depth, but on both sides the trench is at bedrock. Production excavation and backfilling occurred on January 7, 8 and 9.

Groundwater Migration Control System (GMCS)

During the week, the pumping rate of the GMCS varied in response to the changing river levels. The river level rised on January 5 after a significant rainfall on January 4, and decreased from approximately 388.5 feet above mean sea level (amsl) on January 6 to 382.5 feet amsl on January 9. At the end of the week, the combined pumping rate of the three extraction wells was 1,004 gallons per minute (gpm), with an average pumping rate of approximately 335 gpm per well.

Between January 5 and January 7, the river levels were significantly higher than those measured in the four piezometers located upgradient of the barrier wall alignment. Starting from later afternoon of January 7, however, the water levels in the four piezometers were generally higher (up to two feet) than the river elevations.

Table 1 shows the river and piezometer water elevations on January 9 (15:00 PM).

Table 1
River and Piezometer Water Elevations – January 9, 2004 (15:00 PM)

	Elevation (ft above mean sea level)
River Level	382.65
Piezometer 1S (northern-most)	382.77
Piezometer 2E	384.25
Piezometer 3E	383.53
Piezometer 4E (southern-most)	383.45

Site Preparation

Pangea was onsite to check and maintain the silt fences and clay berms around the exclusion zone as necessary.

Stormwater

Because of the rain on January 3 and 4, 2004, significant volume of stormwater accumulated at the site, both inside and outside of the exclusion zone, at the beginning of the week. Pangea pumped stormwater for three days.

Contact stormwater from the exclusion zone and the spoils containment area on the landfill was pumped into the two modutanks. After initial sediment settlement, the water in the tanks were conveyed to American Bottom Treatment Plant for further treatment. It was estimated that at least 400,000 gallons of stormwater were sent to American Bottom this week. At the end of the week, both tanks were half full with stormwater.

Pangea pumped non-contact stormwater from the ditch outside the exclusion zone near station 10+80, through a 6-inch HDPE pipeline to the drainage ditch on the eastern Solutia property boundary of Site R. The non-contact stormwater pumps were set to automatically operate based on probes measuring water levels in the ditch. The pipeline was laid across the exclusion zone into the drainage ditch on the western edge of Site R adjacent to the river.

Slurry Mixing

Approximately 30 tons of bentonite gel was used to mix slurry this week. The slurry, when pumped from the south holding pond to the trench, was tested frequently to assess its viscosity and adjusted with a blending pump using water from the fire hydrant, as necessary. The viscosity of the slurry was measured using a Marsh funnel, with results obtained during the week generally satisfactory.

Barrier Wall Construction

Inquip has opened the trench to approximately 1,440 feet in length along the barrier wall alignment, from station 25+00 towards station 10+60 (please refer to Solutia's map for locations). Only one clamshell rig operated during the week, on January 7, 8 and 9. The daylighted backfill (i.e. at ground surface) advanced approximately 40 feet during the week to station 25+00.

Bentonite slurry was pumped into the trench as needed to keep the excavation open. Top and bottom trench slurry samples, together with fresh slurry samples were tested by PSI on the three days during which clamshell rig operated. The parameters tested on the slurry samples consisted of viscosity, unit weight, filtrate loss, pH, and sand content. The test results generally met the specifications.

Trench depths were measured on three days during the week (AM) with 100 linear feet spacing along the trench and 20-foot spacing of measurements on either side of the backfill toe. The trench depth measurements from the morning of January 9 are shown in Table 2, depicting the weekly progress. Construction progress by January 9, 2004 is shown below. Graph 1 shows the progress of the trench in comparison to the previous week. Graph 2 shows the overall progress of the barrier wall construction.

During the week, Inquip mixed and placed into the trench approximately 660 cubic yards of backfill material. The backfill consisted of spoils with the addition of both clean clay soil at 15 percent and bentonite at 2 percent of backfill volume. Spoils were transferred from central portion of the exclusion zone to the north portion to provide materials for mixing backfill. Backfill was mixed and pushed into the trench using a bulldozer. The backfill was tested by PSI for slump, unit weight and moisture content. All test results met the minimum requirements.

Prior to backfilling, the bottom of trench was cleaned using a clamshell rig. Depth-to-bottom measurements were made every 10 linear feet of trench to ensure the bottom of the trench was at a consistent depth and on top of bedrock. These depth measurements were performed with the clamshell rig's instrumentation and confirmed manually with the downrigger (plumbob on wire). Additionally, two samples of were collected by URS and PSI with a clam sampler from the top of the placed backfill in the trench. These backfill samples were visually checked to ensure that the backfill surface was clean and free of any sand prior to placing additional backfill.

Table 2

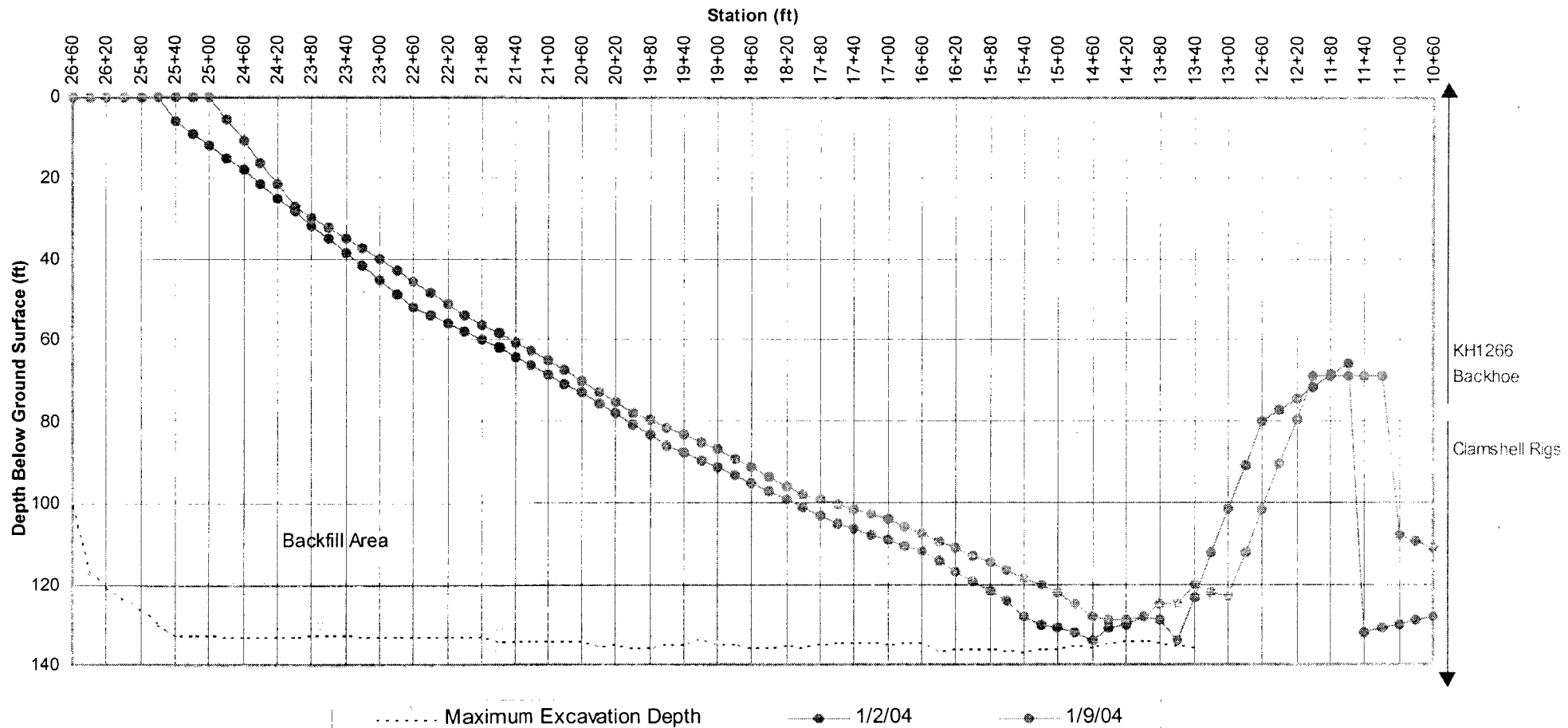
Trench Profile (Downrigger Measurements) for the Barrier Wall Trench – January 9, 2003 (AM)

Station ID	Depth to bottom (ft below ground surface)
10+60	111
11+00	108
12+00	69
13+00	123
13+20	122
13+40	120
13+60	125
13+80	125
14+00	128
14+20	129
14+40	129
14+60	128
14+80	125
15+00	122
16+00	113
17+00	104
18+00	98
19+00	87
20+00	78
21+00	65
22+00	54
23+00	40
24+00	27
25+00	0 (at the end of the day)
25+00 to 25+40	Backfill daylighted (level with ground surface)

Note: Distances between stations where trench depth measurements were read varies in Table 2. Measurements are separated by 100 linear feet of trench in most areas, however, the area that delineates the toe of the backfill is measured every 20 feet.

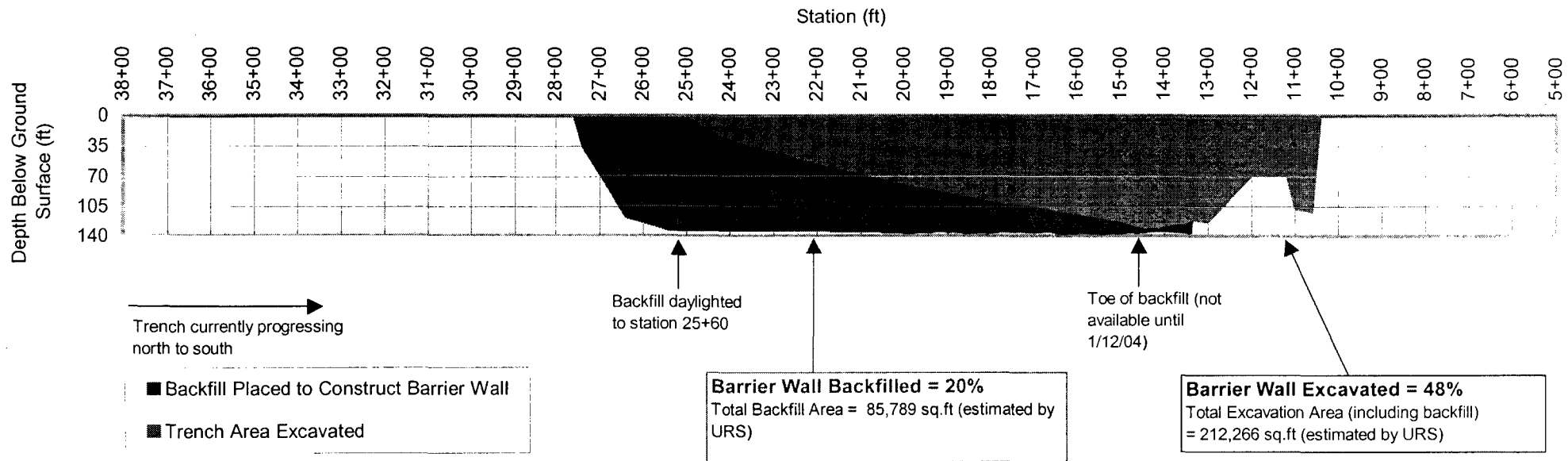
Construction Progress

Graph 1 - Weekly Barrier Wall Construction Progress
Jan. 5th to Jan. 9th 2004



Note: Data plotted for week through AM measurements on 1-9-04.
Some data points are interpolated between the available data points where trench depth measurements were read.

Graph 2 - Barrier Wall Construction Progress by January 9, 2004



Note: Data plotted for week through AM measurements on 1-9-03.
Backfill and Excavation Areas and Percentages are calculated daily by URS based on excavation logs from cranes